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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,101	09/28/2000	Yuji Yamada	7217/62597	9108

7590

08/22/2003

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EXAMINER

MICHALSKI, JUSTIN I

ART UNIT

PAPER NUMBER

2644

DATE MAILED: 08/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/675,101

Applicant(s)

YAMADA ET AL.

Examiner

Justin Michalski

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figure 8 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5, 7, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurisu (PCT WO99/40756).

Regarding Claim 1, Kurisu discloses an audio processing apparatus (Fig. 1) comprising: converting means (Fig. 3: Filter 311L, 311R, 312L, and 312R) for converting a n-channel audio signal supplied from at least one signal source (signals S_{LF} and S_{RF}) into two-channel output signals (outputs S_{L1} and S_{R2}); a pair of correcting filter means (33L, 34L; and 33R, 34R) to which a pair of two-channel signals (Signals S_{L1} and S_{R2}) converted by said converting means is supplied, said correcting filter means correcting a difference of a sense of hearing due to a difference between right and left characteristics of a headphone

(Fig. 1: Headphone 6); and an output section (References 4L, 5L, 4R, and 5R) connected to outputs of said pair of correcting filter means (S_L and S_R) for supplying a pair of output signals respectively to right and left speaker units (speakers 6R and 6L) of the headphone.

Regarding Claim 2, Kurisu further discloses the audio processing apparatus wherein two pairs of correcting filter means are provided (33L, 34L; and 33R, 34R), and correcting characteristics of one pair of said two pairs of correcting filter means (reference 33L and 34L) are set differently than the other pair (reference 33R, and 34R) of said two pairs of correcting filter means (Kurisu discloses 33L, 34L; and 33R, 34R are controlled by computer 74 which controls output (i.e. pairs set differently) as illustrated in the two curves in both of figures 4 and 5).

Regarding Claim 3, Kurisu further discloses an audio processing apparatus according to Claim 2 wherein the output signals corrected by one pair of correcting filter means (33L and 34L) in said two pairs of correcting filter means are supplied from a first output section (4L and 5L) to a first headphone (headphone 6L), and the output signals corrected by the other pair of correcting filter means (33R and 34R) are supplied from a second output section (4R and 5R) to a second headphone (headphone 6R).

Regarding Claim 4, Kurisu further discloses an audio processing apparatus according to Claim 1 where outputs from correcting filter means (references 33L, 34L; and 33R, 34R) are supplied to said output section (references 4L, 5L, 4R, and 5R).

Regarding Claim 5, Kurisu further discloses an audio processing apparatus according to Claim 1 where said pair of correcting filter means comprise of digital filters (Kurisu discloses that circuit 3, which includes correcting filters, is a digital processing circuit) (US 6,108,430 Column 4, lines 10-13).

Regarding Claim 7, Kurisu further discloses an audio processing apparatus according to Claim 1 where two pairs of correcting filter means are provided (References 33L, 34L; and 33R, 34R) and as for correcting characteristics of said two pairs of correcting filter means, include a plurality of correcting data that can be selectively set (Kurisu discloses 33L, 34L, 33R, and 34R are controlled by computer 74 which controls output by curves (i.e. plurality of data) in figures 4 and 5).

Regarding Claim 8, Kurisu further discloses an audio processing apparatus according to Claim 1, where at least one signal source is composed of five positions: left front (S_{LF}); right front (S_{RF}); center front (S_{CF}); left rear (S_{LB}); and right rear (S_{RB}).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Kurisu as applied to claim 1 above in view of Tanner, Jr. et al. (US Patent 6,307,941). Kurisu discloses an audio processing apparatus as stated in Claim 1. Kurisu does not disclose the use of correcting filter means comprising of analog filters. Tanner, Jr. et al. discloses a binaural audio device and teaches that digital or analog filters can be used to perform binaural synthesis by implementing several methods (Column 7, lines 5-19). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was

made to use analog filters for correcting means since analog filters can be used to perform a multitude of filtering functions as disclosed by Tanner, Jr. et al.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kurusu (US Patent 6,108,430) US Patent of PCT WO99/40756

Ogita (US Patent 6,178,247) Ogita discloses a headphone apparatus providing outputs from multi-source input signal.

Douglas (US Patent Application Publication 2001/0050993) Douglas discloses two pairs of headphones connected to device.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Michalski whose telephone number is (703)305-5598. The examiner can normally be reached on 8 Hours, 5 day/week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Isen can be reached on (703)305-4386. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

JIM


XU MEI
PRIMARY EXAMINER